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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/816,582	03/31/2004	R. David Arnold	07844-636001 / P589	8418

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EXAMINER
CHOW, JEFFREY J

ART UNIT	PAPER NUMBER
2628	

MAIL DATE	DELIVERY MODE
11/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/816,582	ARNOLD ET AL.
	Examiner	Art Unit	
	Jeffrey J. Chow	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 May 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-10,13-22 and 25-34* is/are allowed.

6)☒ Claim(s) *11,12,23,24,35 and 36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>05 February 2007</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 08-06)   Office Action Summary   Part of Paper No./Mail Date 20070727

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e)

has been timely paid, the finality of the previous Office action has been withdrawn pursuant to

37 CFR 1.114. Applicant's submission filed on 06 July 2007 has been entered.

Response to Arguments

Applicant's arguments filed 03 August 2007 have been fully considered but they are not

persuasive.

Applicant argues the combination of Arnold (US 5,929,866) and Dowling (US

5,943,063) does not teach the limitation of "a plurality of parameters for rendering the glyph

including a hinting policy" (page 13). Dowling teaches multiple parameters, such as character

point, size, number of grey scales, and policy (column 6, line 63 – column 7, line 7) and wherein

policies demonstrate hinting policies (Figures 9A – 9D and 10A – 10D)

Applicant argues the combination of Arnold (US 5,929,866) and Dowling (US

5,943,063) does not teach the limitation of "using a scaled stem width of the glyph to select a

rendering policy" (pages 13 and 14). Examiner relies on Arnold's method of producing a density

map 30 and adjusting the density map 40 (Figure 1a). The step from the density map to the

adjusted density map 31 uses the equation disclosed in Arnold's invention. Examiner then relies

on Dowling's method of receiving a hinting policy (104) to determine how the render the stem

(Figure 6). Applying the teachings of Dowling to Arnold's system by applying a hinting policy

(Dowling, Figure 6: 104) to the adjust density map (Arnold, Figure 1a: 40) would not destroy

Arnold's system, but in fact improve Arnold's system by applying a desired hinting policy.

Though Dowling's system provides a high resolution bitmap information for grayscale rendering

after receiving the hinting policy, Arnold's system would not become inoperable as the system is

already in a high resolution rendering before the adjustment of the density map and therefore the

values in Dowling's system that would be applied to the high resolution bitmap would be applied

to Arnold's existing high resolution bitmap. The method of hinting and the values for hinting

that would be applied in the high resolution map taught by Dowling would be applied to the

already existing high resolution bitmap in Arnold's system. Nonetheless, the process of

determining what the glyph looks like is done before displaying what the glyph looks like, as

claimed.

Applicant argues the Dowling does not disclose selecting a hinting policy based on a

scaled stem width (page 14). Arnold is relied upon to teach, "using a scaled stem width of the

glyph to select a rendering policy for rendering the glyph (column 6, lines 29 – 64: a scaled stem

width and where the scaled stem width is used in an equation to adjust the density values of the

character). Dowling teaches "a rendering policy comprises a plurality of parameters for

rendering the glyph including a hinting policy" (column 6, line 63 – column 7, line 7: the start of

the program receives character pointer, size, number of grey scales, and policy). Since Arnold's

system have different values to adjust the density values of the character, the value can be used

to determine a hinting policy, such as higher values for hard hinting policy and low values for

soft hinting policy. The different hinting policies used are to improve looks of the characters to

be rendered.

The 35 U.S.C. 101 rejections have been withdrawn due to applicant's amendments.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 11, 12, 23, 24, 35, and 36 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Arnold (US 5,929,866) in view of Dowling (US 5,943,063).

Regarding independent claim 11, Arnold discloses creating a density map for the

character to be rendered (column 4, lines 10 – 37), which reads on the claimed receiving a

plurality of glyphs to be rendered. Arnold discloses a scaled stem width and where the scaled

stem width is used in an equation to adjust the density values of the character (column 6, lines 29

– 64), which reads on the claimed for each glyph, before rasterizing a representation of the

glyph, using a scaled stem width of the glyph to select a rendering policy for rendering the glyph.

Arnold did not expressly disclose the rendering policy comprises a plurality of parameters for

rendering the glyph including a hinting policy, although Arnold does disclose an equation that

uses different parameters and obtain an index value to decide what density value to adjust

(column 6, lines 50 – 64 and Figure 6). Dowling discloses the start of the program receives

character pointer, size, number of grey scales, and policy (column 6, line 63 – column 7, line 7)

and wherein policies demonstrate hinting policies (Figures 9A – 9D and 10A – 10D). It would have been obvious for one of ordinary skill in the art at the time of the invention to improve Arnold's system by applying a hinting policy at certain adjust density values in the table given in Figure 4. One would be motivated to do so because this would helps the renderer rebalance the stems. The improvement in Arnold's system would be to apply a certain renedering policy with hints to the adjusted density value of "16" by hinting adjacent pixels next to the pixel value with an adjust density value of "16". Hinting policy can be applied to any other adjusted density value besides "16".

Regarding dependent claim 12, Arnold discloses each device pixel corresponds to one density element (column 5, lines 14 and 15), which reads on the claimed rendered glyph is represented by a plurality of device pixels. Arnold discloses a scaled stem width and where the scaled stem width is used in an equation to adjust the density values of the character (column 6, lines 29 – 64), which reads on the claimed selected rendering policy includes an initial adjustment value for adjusting density values of one or more of the plurality of device pixels.

Regarding claims 23, 24, 35, and 36, claims 23, 24, 35, and 36 are similar in scope as to claims 11 and 12, thus the rejections for claims 11 and 12 hereinabove is applicable to claims 23, 24, 35, and 36.

Allowable Subject Matter

Claims 1 – 10, 13 – 22, and 25 – 34 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jeffrey J. Chow whose telephone number is (571)-272-8078. The

examiner can normally be reached on Monday - Friday 10:00AM - 5:00PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ulka Chauhan can be reached on (571)-272-7782. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ULKA CHAUHAN
SUPERVISORY PATENT EXAMINER